UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,618	06/19/2001	Richard L. Spagna	SOM920010003US1	5040

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EXAMINER
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ART UNIT	PAPER NUMBER
2131	

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary		Application No.	Applicant(s)
		09/884,618	SPAGNA ET AL.
		Examiner	Art Unit
		Kaveh Abrishamkar	2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 March 2006</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-4 and 10-22</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-4 and 10-22</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is in response to After-Final Amendment filed on March 24, 2006.

Claims 1-4, and 10-22 remain pending in the application.

Response to Arguments

2.   Applicant's arguments filed March 24, 2006 have been fully considered but they

are not persuasive for the following reasons:

Regarding claim 1, the Applicant argues that the Cited Prior Art (CPA), James

(U.S. Patent 6,934,717), does not teach "populating the data table with the data items at

locations specified by the location indicators in the reference table." This argument is

not found persuasive.   The CPA teaches that after a query is received including the

identifier for the data row (location indicator), the file server accesses the index and then

retrieves the data item and copies it to the System Global Area (SGA) if it is not present

in the SGA (if data is updated) (column 8 lines 47-65). This is seen as analogous to

populating the data table.

Furthermore, Foster et al. (U.S. Patent 6,853,727), was used to teach the

limitations of decrypting the reference table with a decrypting key. The reference has

been disqualified under 35 U.S.C. 103 (c) as it is commonly owned. A new reference,

Rajasekaran et al. (U.S. Patent Publication US 2002/0174355 A1), has been

incorporated in the below rejection to teach the limitation of decrypting the reference

table with a decrypting key, and the rejection is maintained as a Final Rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-4, and 10-22 are rejected under 35 U.S.C. 103(a) as being

unpatentable over James (U.S. Patent No. 6,934,717) in view of Rajasekaran et al.

(U.S. Patent Publication US 2002/0174355 A1.

Regarding claim 1, James discloses:

A method for forming a data table stored in memory, the data table forming a

library index of storage locations to electronics digital content, the method comprising

the steps of:

decrypting at least a section of a file with a first decrypting key, wherein the first

decrypting key is formed as a combination of a base key, a time stamp, and an update

number so as to uniquely correspond to both a given time and a given update in the

section of the file (column 4 lines 27-57), wherein the key can comprise time stamp

information and/or a version (update) number;

determining if there are any updates in the section of the file to any data items

that form a library index of storage locations (column 10 lines 16-23) to electronic digital

content and if there are no updates then performing the steps of:

a reference table containing one or more location indicators for storing the data

items in a data table (column 6 lines 13-58); and

populating the data table with the data items at locations specified by the location

indicators in the reference table (column 6 lines 47-57, column 10 lines 7-29).

James does not explicitly disclose decrypting a reference table with the first

decrypting key. Rajasekaran discloses decrypting an index table in response to a query

(paragraphs 107-109). Rajasekaran and James are analogous arts as both contain file

reference tables used to access files stored in memory. Rajasekaran decrypts the

index file in order to search for an encrypted query element (paragraph 109).

Furthermore, Rajasekaran states that the encryption and subsequent decryption of the

index table is necessary so that it is possible to "search encrypted searchable spaces

(e.g., encrypted files) in an efficient manner while minimizing the memory and

computing resources required to do the searches" (paragraph 8). Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made

to encrypt the reference table of James according to the method quick search and data

population as delineated by Rajasekaran (paragraph 8).

Claim 2 is rejected as applied above in rejecting claim 1. Furthermore, James

discloses:

The method according to claim 1, wherein the step of populating the data table includes populating the data table in a tamper resistant environment (column 6 lines 47-57, column 10 lines 7-29).

Claim 3 is rejected as applied above in rejecting claim 1. Furthermore, James discloses:

The method according to claim 1, further comprising the steps of retrieving from a key database at least one of:

a base key (column 4 lines 27-57);

a time stamp (column 4 lines 27-57); and

an update number (column 4 lines 27-57).

Claim 4 is rejected as applied above in rejecting claim 1. Furthermore, James discloses:

The method according to claim 1, wherein the steps of determining if there any updates in the section of the file includes:

getting an offset to an update reference table (column 8 lines 19-28, column 10 lines 16-29, column 11 lines 51-54, column 12 lines 1-6) ;

the update reference table containing one or more location indicators for updates to the data items (column 6 lines 13-58); and

populating the data table with the updates to the data items at locations specified

in the update reference table with the updates to the data items (column 6 lines 47-57,

column 10 lines 7-29).

James does not explicitly disclose decrypting a reference table with the first

decrypting key. Rajasekaran discloses decrypting an index table in response to a query

(paragraphs 107-109). Rajasekaran and James are analogous arts as both contain file

reference tables used to access files stored in memory. Rajasekaran decrypts the

index file in order to search for an encrypted query element (paragraph 109).

Furthermore, Rajasekaran states that the encryption and subsequent decryption of the

index table is necessary so that it is possible to "search encrypted searchable spaces

(e.g., encrypted files) in an efficient manner while minimizing the memory and

computing resources required to do the searches" (paragraph 8). Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made

to encrypt the reference table of James according to the method quick search and data

population as delineated by Rajasekaran (paragraph 8).

Regarding claim 10, James discloses:

A method for forming a data table stored in memory, the data table forming a

library index of storage locations to electronics digital content, the method comprising

the steps of:

decrypting at least a section of a file with a first decrypting key, wherein the first

decrypting key is formed as a combination of a base key, a time stamp, and an update

number so as to uniquely correspond to both a given time and a given update in the

section of the file (column 4 lines 27-57), wherein the key can comprise time stamp

information and/or a version (update) number;

determining if there are any updates in the section of the file to any data items

that form a library index of storage locations (column 10 lines 16-23) to electronic digital

content and if there are no updates then performing the steps of:

a reference table containing one or more location indicators for storing the data

items in a data table (column 6 lines 13-58); and

populating the data table with the data items at locations specified by the location

indicators in the reference table (column 6 lines 47-57, column 10 lines 7-29).

James does not explicitly disclose decrypting a reference table with the first

decrypting key. Rajasekaran discloses decrypting an index table in response to a query

(paragraphs 107-109). Rajasekaran and James are analogous arts as both contain file

reference tables used to access files stored in memory. Rajasekaran decrypts the

index file in order to search for an encrypted query element (paragraph 109).

Furthermore, Rajasekaran states that the encryption and subsequent decryption of the

index table is necessary so that it is possible to "search encrypted searchable spaces

(e.g., encrypted files) in an efficient manner while minimizing the memory and

computing resources required to do the searches" (paragraph 8). Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made

to encrypt the reference table of James according to the method quick search and data

population as delineated by Rajasekaran (paragraph 8).

Regarding claim 11, James discloses:

A computer readable medium containing programming instruction for forming a

data table stored in memory, the data table forming a library index of storage locations

to electronic digital content, the programming instructions comprising:

decrypting at least a section of a file with a first decrypting key, wherein the first

decrypting key is formed as a combination of a base key, a time stamp, and an update

number so as to uniquely correspond to both a given time and a given update in the

section of the file (column 4 lines 27-57), wherein the key can comprise time stamp

information and/or a version (update) number;

determining if there are any updates in the section of the file to any data items

that form a library index of storage locations (column 10 lines 16-23) to electronic digital

content and if there are no updates then performing the steps of:

a reference table containing one or more location indicators for storing the data

items in a data table (column 6 lines 13-58); and

populating the data table with the data items at locations specified by the location

indicators in the reference table (column 6 lines 47-57, column 10 lines 7-29).

James does not explicitly disclose decrypting a reference table with the first

decrypting key. Rajasekaran discloses decrypting an index table in response to a query

(paragraphs 107-109). Rajasekaran and James are analogous arts as both contain file

reference tables used to access files stored in memory. Rajasekaran decrypts the

index file in order to search for an encrypted query element (paragraph 109).

Furthermore, Rajasekaran states that the encryption and subsequent decryption of the

index table is necessary so that it is possible to "search encrypted searchable spaces

(e.g., encrypted files) in an efficient manner while minimizing the memory and

computing resources required to do the searches" (paragraph 8). Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made

to encrypt the reference table of James according to the method quick search and data

population as delineated by Rajasekaran (paragraph 8).

Claim 12 is rejected as applied above in rejecting claim 1. Furthermore, James

discloses:

The computer readable medium according to claim 11, wherein the programming

instruction of populating the data table includes populating the data table in a tamper

resistant environment (column 6 lines 47-57, column 10 lines 7-29).

Claim 13 is rejected as applied above in rejecting claim 1. Furthermore, James

discloses:

The computer readable medium according to claim 11, further comprising :

a base key (column 4 lines 27-57);

a time stamp (column 4 lines 27-57); and

an update number (column 4 lines 27-57).

Claim 14 is rejected as applied above in rejecting claim 11. Furthermore, James

discloses:

The method according to claim 1, wherein the steps of determining if there any

updates in the section of the file includes:

getting an offset to an update reference table (column 8 lines 19-28, column 10

lines 16-29, column 11 lines 51-54, column 12 lines 1-6) ;

the update reference table containing one or more location indicators for updates

to the data items (column 6 lines 13-58); and

populating the data table with the updates to the data items at locations specified

in the update reference table with the updates to the data items (column 6 lines 47-57,

column 10 lines 7-29).

James does not explicitly disclose decrypting a reference table with the first

decrypting key. Rajasekaran discloses decrypting an index table in response to a query

(paragraphs 107-109). Rajasekaran and James are analogous arts as both contain file

reference tables used to access files stored in memory. Rajasekaran decrypts the

index file in order to search for an encrypted query element (paragraph 109).

Furthermore, Rajasekaran states that the encryption and subsequent decryption of the

index table is necessary so that it is possible to "search encrypted searchable spaces

(e.g., encrypted files) in an efficient manner while minimizing the memory and

computing resources required to do the searches" (paragraph 8). Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made

to encrypt the reference table of James according to the method quick search and data

population as delineated by Rajasekaran (paragraph 8).

Regarding claim 15, James discloses:

An end user information processing comprising:

decrypting at least a section of a file with a first decrypting key, wherein the first

decrypting key is formed as a combination of a base key, a time stamp, and an update

number so as to uniquely correspond to both a given time and a given update in the

section of the file (column 4 lines 27-57), wherein the key can comprise time stamp

information and/or a version (update) number;

determining if there are any updates in the section of the file to any data items

that form a library index of storage locations (column 10 lines 16-23) to electronic digital

content and if there are no updates then performing the steps of:

a reference table containing one or more location indicators for storing the data

items in a data table (column 6 lines 13-58); and

populating the data table with the data items at locations specified by the location

indicators in the reference table (column 6 lines 47-57, column 10 lines 7-29).

James does not explicitly disclose decrypting a reference table with the first

decrypting key. Rajasekaran discloses decrypting an index table in response to a query

(paragraphs 107-109). Rajasekaran and James are analogous arts as both contain file

reference tables used to access files stored in memory. Rajasekaran decrypts the

index file in order to search for an encrypted query element (paragraph 109).

Furthermore, Rajasekaran states that the encryption and subsequent decryption of the index table is necessary so that it is possible to "search encrypted searchable spaces (e.g., encrypted files) in an efficient manner while minimizing the memory and computing resources required to do the searches" (paragraph 8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to encrypt the reference table of James according to the method quick search and data population as delineated by Rajasekaran (paragraph 8).

Claim 16 is rejected as applied above in rejecting claim 15. Furthermore, James discloses:

The end user information processing system according to claim 15, wherein the means for populating the data table includes populating the data table in a tamper resistant environment (column 6 lines 47-57, column 10 lines 7-29).

Claim 17 is rejected as applied above in rejecting claim 1. Furthermore, James discloses:

The method according to claim 1, further comprising decrypting one or data items with the first decrypting key.

Claim 18 is rejected as applied above in rejecting claim 4. Furthermore, James discloses:

The method according to claim 4, further comprising decrypting the updates to the data items with the first decrypting key (column 4 lines 5-55).

Claim 19 is rejected as applied above in rejecting claim 11. Furthermore, James discloses:

The computer readable medium according to claim 11, further comprising decrypting one or more data items with the first decrypting key (column 5 lines 5-55).

Claim 20 is rejected as applied above in rejecting claim 15. Furthermore, James discloses:

The end user information processing system according to claim 15, further comprising decrypting the updates to the data items with the first decrypting key (column 5 lines 5-55).

Claim 21 is rejected as applied above in rejecting claim 15. Furthermore, James discloses:

The end user information processing system according to claim 15, wherein the means for populating further comprises:

getting an offset to an update reference table (column 8 lines 19-28, column 10 lines 16-29, column 11 lines 51-54, column 12 lines 1-6) ;

the update reference table containing one or more location indicators for updates to the data items (column 6 lines 13-58); and

populating the data table with the updates to the data items at locations specified

in the update reference table with the updates to the data items (column 6 lines 47-57,

column 10 lines 7-29).

James does not explicitly disclose decrypting a reference table with the first

decrypting key. Rajasekaran discloses decrypting an index table in response to a query

(paragraphs 107-109). Rajasekaran and James are analogous arts as both contain file

reference tables used to access files stored in memory. Rajasekaran decrypts the

index file in order to search for an encrypted query element (paragraph 109).

Furthermore, Rajasekaran states that the encryption and subsequent decryption of the

index table is necessary so that it is possible to "search encrypted searchable spaces

(e.g., encrypted files) in an efficient manner while minimizing the memory and

computing resources required to do the searches" (paragraph 8). Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made

to encrypt the reference table of James according to the method quick search and data

population as delineated by Rajasekaran (paragraph 8).

Claim 22 is rejected as applied above in rejecting claim 20. Furthermore, James

discloses:

The end user information processing system according to claim 20, further

comprising decrypting the updates to the data items with the first decrypting key

(column 5 lines 5-55).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaveh Abrishamkar whose telephone number is 571-272-3786. The examiner can normally be reached on Monday thru Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

KA
04/06/2006

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SUPERVISORY PATENT EXAMINER